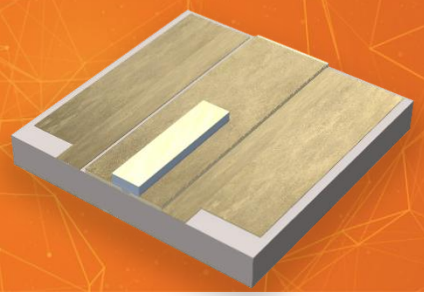
ML4011

80 mW 1550 nm DFB Chip-on-Carrier

Modulight's ML4011 is a high-power, single longitudinal mode DFB laser chip on an AlN submount. This laser delivers >80 mW output power at 1545 nm wavelength.



Electro-optical Characteristics

Parameter	Symbol	Min.	Typical	Max.	Unit
Central Wavelength @ I_{OP} = 100 mA	λ	1540	1545	1550	nm
Optical Output Power (CW, I_{OP} = 400 mA)	P_{OPT}	80	90	-	mW
Spectral Linewidth (CW, P_{OPT} = 50 mW)	Δν	-	-	2	MHz
Side-Mode Suppression Ratio (CW, P_{OPT} = 50 mW)	SMSR	35	-	-	dB
Temperature tuning coefficient	Δλ/ΔT	-	0.094	-	nm/K
Operating Current @ P_{OPT} = 80 mW	I_{OP}	-	400	500	mA
Operating Voltage @ P_{OPT} = 50 mW	V_{OP}	-	1.8	2.0	V
Threshold Current	I_{TH}	16	20	25	mA
Parallel Beam Divergence (FWHM) @ P_{OPT} = 50 mW	θ ∥	-	15	-	°
Perpendicular Beam Divergence (FWHM) @ P_{OPT} = 50 mW	θ⊥	-	21	-	°
Polarization			TE		

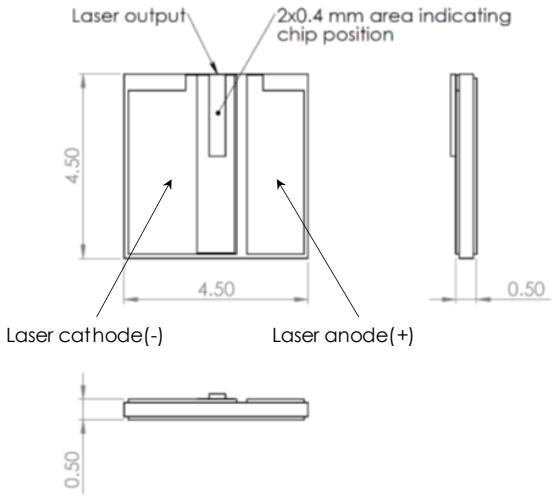
Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
LD Forward Current	I_{FLD}	500	mA
LD Reverse Voltage	I_{RLD}	2	V
Operating Temperature Range [1]	T_{OP}	+20 ... 50	°C
Storage Temperature Range	T_{ST}	-40 ... 85	°C

[1] A non-condensing environment should be ensured over the useful temperature range.

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Mechanical Specification



All dimensions are millimeters (mm).

Safety Information

- ❑ The laser light emitted from this laser diode is invisible and potentially harmful to the human eye. Avoid eye and skin exposure to the beam, both direct and reflected.
- ❑ Products are subject to the risks normally associated with sensitive electronic devices including static discharge, transients, and overload. Please ensure ESD protection prior to handling the products.
- ❑ These Modulight products are not intended for use in systems where product malfunction can reasonably be expected to result in personal injury.



Peak power and wavelength are for safety analysis only, not to present device performance.

Liability note

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RoHS compliance

The product complies with EU RoHS 2 (Directive 2011/65/EU) and China RoHS II (Management Methods for the Restriction of the Use of Hazardous Substances in Electrical and Electronic Products)

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